ORDINANCE NO. 2015-06, THIRD SERIES

AN ORDINANCE OF THE CITY OF HASTINGS, MINNESOTA AMENDING HASTINGS CITY CODE CHAPTERS 152 PERTAINING TO STORM WATER MANAGEMENT

BE IT ORDAINED by the City Council of the City of Hastings as follows:

Chapter 152 of the Hastings City Code – Storm Water Management is hereby amended as follows: (Additions to the ordinance are underlined, deletions to the ordinance are ~~stricken~~ and section numbers may be renumbered):

§ 152.06 STORM WATER MANAGEMENT PLAN APPROVAL PROCEDURES.

(A) *Application.*

(1) A written application for storm water management plan approval, along with the proposed storm water management plan, shall be filed with the Public Works Department and shall include a statement indicating the grounds upon which the approval is requested, that the proposed use is permitted by right or as an exception in the underlying zoning district, and adequate evidence showing that the proposed use will conform to the standards set forth in this chapter. Prior to applying for approval of a ~~stone~~ storm water management plan, an applicant may have the storm water management plans reviewed by the appropriate departments of the city.

(2) ~~Two sets of clearly legible blue or black lined copies of~~ One electronic pdf drawings and other required information shall be submitted electronically to the Public Works Department and shall be accompanied by all required fees for processing and approval as set forth in §152.07(E), and a bond when required by § 152.07(D) in the amount to be calculated in accordance with that section. Drawings shall be prepared to a scale appropriate to the site of the project and suitable for the review to be performed. The drawing scale may range from a maximum of 1 inch equals 20 feet to a minimum of 1 inch equals 100 feet. Electronic copies of the drawings shall also be submitted in a pdf format or other electronic format as specified by the Public Works Department.

(a) The name and address of the applicant, the project name, the section, township and range, north direction arrow, date and scale of drawing and number of sheets;

(a) Locations ~~and~~, dimensions including total acreage of all proposed land disturbing activities and any phasing and phasing time frame of those activities;

(c) Locations and dimensions of all construction site erosion control measures and storm water BMPs necessary to meet the requirements of this chapter;

(f) Contractor is responsible for submitting to the City an erosion control inspection form after every half inch or greater rain event and at a minimum of one time per week. A rain gage must be present on site.

(g) Erosion control and erosion control inspection priority must be given to areas susceptible to erosion due to site topography, soil characteristics, quality of receiving water, state of construction, and weather conditions.

(F) Storm water management criteria for new development or re-development projects with land disturbance of greater than or equal to one acre. (Ord. 2011-20 3rd Series, Passed on 9-6-11). Green infrastructure techniques and practices (ie. infiltration, filtration, evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs) are to be given highest priority to meet the water quality treatment requirements. Infiltration/filtration options are the preferred approach to satisfying the water quality treatment requirements of the NPDES General Construction Permit. Rate and volume calculations are to utilize NOAA Atlas 14 precipitation frequency estimates.

(1) Conditions

(a) Post Construction Water Quality.

(1) Post construction storm water runoff quality measures shall meet the standard for the General Permit Authorization to Discharge Storm Water Associated With Construction Activity Under the National Pollutant Discharge Elimination System/State Disposal System Permit Program Permit (NPDES General Construction Permit) issued by the Minnesota Pollution Control Agency.

(2) Storm water discharges of Total Suspended Solids (TSS) and Total Phosphorus (TP) shall have no net increase from pre-project conditions for new development and a net reduction from pre-project conditions for re-development.

(3) Circumstances where the TSS and TP requirements cannot be reasonably achieved on site shall be addressed through mitigation.

(a) Mitigation projects shall be selected in the following order of preference:

(1) Locations that yield benefits to the same receiving water that receives runoff from the original construction activity.

(2) Locations within the same Department of Natural Resource (DNR) catchment area as the original construction activity.

(3) Locations in the next adjacent DNR catchment area up-stream.

(4) Locations anywhere within the City of Hastings.

(b) Mitigation projects must involve the creation of new structural stormwater BMPs, retrofit of existing structural stormwater BMPs, or the use of a propertly designed regional structural stormwater BMP.

(c) Routine maintenance of structural BMPs cannot be used to meet mitigation.

(d) Mitigation projects shall be completed within 24 months after the start of the original construction activity.

(e) The long term maintenance for stormwater BMPs shall be determined prior to construction activity.

(f) If monetary payment is received to satisfy mitigation processes then payment shall be applied to a public stormwater project and comply with City Ordinance 152.08(F)(1)(a)(3)(1)(a-d)

(b) Peak Runoff Rate.

(1) Hydrologic models and design methodologies used for the determination of runoff and analysis of storm water management infrastructure shall be signed by a registered professional engineer and approved by the Engineering Department.

(2) Runoff rates for proposed land disturbing activities greater than or equal to one acre shall:

(a) Utilize an existing condition in the runoff calculation as defined as the land cover condition existing in the year 2005.

(b) Not exceed existing runoff rates for the 1-year 24 hour, 10-year 24 hour, 100-year 24 hour, and 100 year 4 day storm events.

(c) Volume Runoff Criteria.

(1) Hydrologic models and design methodologies used for the determination of runoff and analysis of storm water management infrastructure shall be signed by a registered professional engineer and approved by the Engineering Department.

(2) Runoff volume for proposed land disturbing activities greater than or

equal to one acre shall:

(a) Utilize an existing condition in the runoff calculation as defined as the land cover condition existing in a pre-project condition.

(b) Not exceed the existing pre-project runoff rates for the 2-year 24 hour storm event.

(3) Exceptions where a lessor volume control will be acceptable.

(a) Infiltration, as listed in 152.08(F)(2)(a), prohibit volume control.

(b) Non-infiltration green technologies are implemented to the maximum extent possible.

(c) Outlets from landlocked basins with a tributary drainage area of greater than or equal to 100 acres, provided:

(1) Outlets are consistent with other portions of the City Ordinances

(2) Outlets have been analyzed for any detrimental downstream impacts, riparian impacts, and habitat impacts. The analysis shall include:

(a) Use a hydrograph method based on sound hydrologic theory to analyze runoff for the design or analysis of flows and water levels;

(b) Ensure a hydrologic analysis is consistent with the Stormwater Runoff Control Criteria of the City Ordinances.

(c) Ensure the outlet does not create adverse downstream flooding or water quality conditions, or materially affect stability of downstream major waterways;

(d) Maintain dead storage within the basin to the maximum extent possible while preventing damage to property adjacent to the basin;

(e) Ensure that the low floors of new structures adjacent to the basin are set consistent with the Floodplain Alterations Rule; and

(f) Ensure that proposed development tributary to the land-locked basin has incorporated runoff volume control practices to the extent practical.

(d) Artificial drainage, flow obstruction, and diversions involving waterways, public waters, and wetlands with drainage areas of 640 acres or more, provided:

(1) Alterations and diversions are consistent with other portions of the City Ordinances

(2) Alterations and diversions have been analyzed for any detrimental downstream impacts, riparian impacts, and habitat impacts. The analysis shall include:

(a) Provide reasonable necessity for such drainage alteration or diversion to improve or protect human health and safety, or to improve or protect aquatic resources;

(b) Ensure reasonable care has been taken to avoid unnecessary injury to upstream and downstream land;

(c) Ensure the utility or benefit accruing to the land on which the drainage will be altered reasonably outweighs the gravity of the harm resulting to the land receiving the burden; and

(d) Ensure the drainage alteration or diversion is being accomplished by reasonably improving and aiding the normal and natural system of drainage according to its reasonable carrying capacity, or in the absence of a practicable natural drain, a reasonable and feasible artificial drainage system is being adopted.

(e) Drainage alterations, diversions, and landlocked basin outlets shall be provided with stable channels and outfall.

(d) Design Criteria

(1) Minimize connected impervious surfaces.

(2) Vegetation used in conjunction with infiltration systems must be tolerant of urban pollutants and the range of soil moisture conditions anticipated.

(3) Infiltration and filtration areas must be fenced or otherwise protected from disturbance before the land disturbing project begins.

(2) Limitations of using infiltration techniques to achieve storm water management. Filtration and other green technologies should be considered instead.

(a) Conditions

(1) Where vehicle fueling and maintenance occur.

(2) Where industrial areas with exposed materials are capable of leeching into the soil

(3) Where industrial facilities are not authorized to infiltrate industrial stormwater under an NPDES/SDS Industrial Stormwater Permit issued by the Agency.

(4) Where high level of contaminants in soil or groundwater will be mobilized.

(5) Where less than three (3) feet separates the bottom of the infiltration system to the elevation of the top of bedrock or seasonally saturated soils (ie. water table).

(6) Type D Soils (clay)

(7) Where soil infiltration rates are more than 8.3 inches per hour.

(8) Within an emergency response area, as defined by the Drinking Water Surface Management Area (DWSMA).

(9) Within the one year travel zone of a municipal or other community supply well as defined in the Hastings Well Head Protection Plan (WHPP). The following design requirements need be adhered to if infiltration for volume control is to be considered as an option:

(a) Pretreatment of stormwater runoff is designed to protect infiltration system from clogging with sediment and to protect groundwater quality.

(b) Hydrological soil group classification and saturated infiltration rate shall comply with the current VRWJPO rules.

(c) Site specific infiltration or hydraulic conductivity measurements shall be performed by a licensed soil scientist or engineer.

(d) Infiltration rates shall reflect the least permeable horizon within the first five feet below the bottom of the infiltration system.

(e) Infiltration system shall be capable of infiltrating the required volume within 72 hours.

(10) Within 100 feet of a private well unless specifically allowed by an approved WHPP.

(11) Within 1,000 feet up-gradient, or 100 feet down gradient of active karst features.

(12) Within linear projects where the lack of available or obtainable right-of-way prevents the installation of volume control practices.

(3) Long term maintenance of structural stormwater BMPs

(a) A legal document shall be executed that determines the party responsible for long term maintenance of the stormwater BMP. Should the BMP be on private property, the agreement shall allow the City to enter the property to inspect, notify owner of maintenance duties, and if necessary conduct necessary maintenance to maintain normal functionality of the BMP. Costs to perform maintenance shall be assessed to the property owner.

All other sections shall remain unchanged.

ADOPTED by the Hastings City Council on this 6th day of April, 2015.

Paul J. Hicks, Mayor

ATTEST:

Julie Flaten, City Clerk

I HEREBY CERTIFY that the above is a true and correct copy of an ordinance presented to and adopted by the City of Hastings, County of Dakota, Minnesota, on the 20th day of April, 2015, as disclosed by the records of the City of Hastings on file and of record in the office.

Julie Flaten, City Clerk

(SEAL)

This instrument drafted by:
City of Hastings (JRC)
101 4th St. East
Hastings, MN 55033